

Service Manual

BNC Dual Video Terminal Board

TY-FB9BD



⚠ WARNING

This service information is designed for experienced service personnel only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential danger in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced service personnel. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

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1 Safety Precautions

1.1. General Guidelines

1. When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.
2. After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.
3. After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.

1.1.1. Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the two prongs on the plug.
2. Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to the chassis, the reading should be between $1M\Omega$ and $5.2M\Omega$.

When the exposed metal does not have a return path to the chassis, the reading must be ∞ .

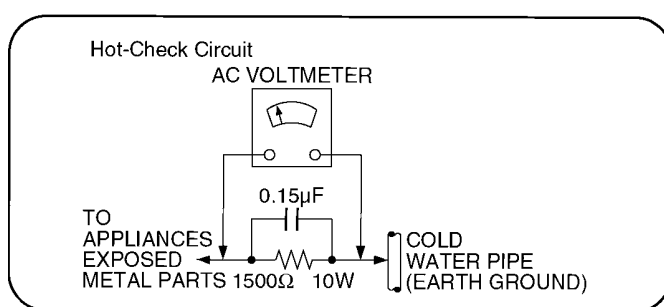


Figure 1

1.1.2. Leakage Current Hot Check (See Figure 1.)

1. Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.
2. Connect a $1.5k\Omega$, 10 watts resistor, in parallel with a $0.15\mu F$ capacitors, between each exposed metallic part on the set and a good earth ground such as a water pipe, as shown in Figure 1.
3. Use an AC voltmeter, with 1000 ohms/volt or more sensitivity, to measure the potential across the resistor.
4. Check each exposed metallic part, and measure the voltage at each point.
5. Reverse the AC plug in the AC outlet and repeat each of the above measurements.
6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 milliamp. In case a measurement is outside of the limits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.

2 Prevention of Electro Static Discharge (ESD) to Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistors and semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).


1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, which should be removed for potential shock reasons prior to applying power to the unit under test.
2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.
3. Use only a grounded-tip soldering iron to solder or unsolder ES devices.
4. Use only an anti-static solder removal device. Some solder removal devices not classified as "anti-static (ESD protected)" can generate electrical charge sufficient to damage ES devices.
5. Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.
6. Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparable conductive material).
7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution

Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD) sufficient to damage an ES device).

IMPORTANT SAFETY NOTICE

There are special components used in this equipment which are important for safety. These parts are marked by  in the schematic diagrams, Exploded Views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.

3 About lead free solder (PbF)

Note: Lead is listed as (Pb) in the periodic table of elements.

In the information below, Pb will refer to Lead solder, and PbF will refer to Lead Free Solder.

The Lead Free Solder used in our manufacturing process and discussed below is (Sn+Ag+Cu).

That is Tin (Sn), Silver (Ag) and Copper (Cu) although other types are available.

This model uses Pb Free solder in it's manufacture due to environmental conservation issues. For service and repair work, we'd suggest the use of Pb free solder as well, although Pb solder may be used.

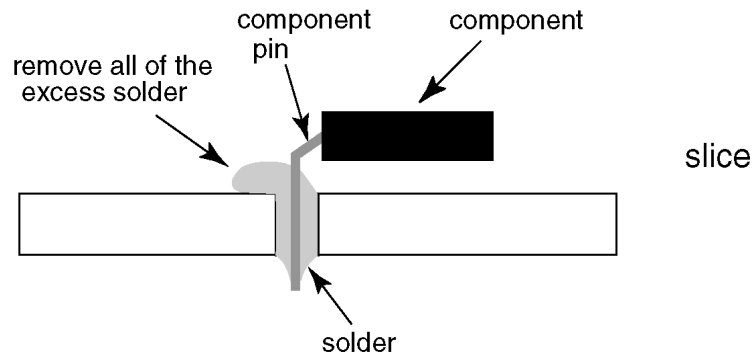
PCBs manufactured using lead free solder will have the PbF within a leaf Symbol  stamped on the back of PCB.

Caution

- Pb free solder has a higher melting point than standard solder. Typically the melting point is 50 ~ 70 °F (30~40°C) higher. Please use a high temperature soldering iron and set it to 700 ± 20 °F (370 ± 10 °C).
- Pb free solder will tend to splash when heated too high (about 1100 °F or 600 °C).

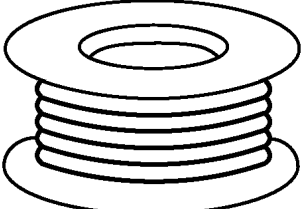
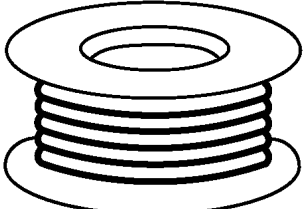
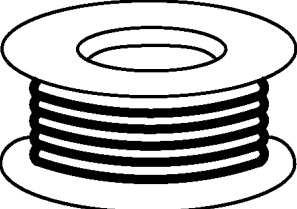
If you must use Pb solder, please completely remove all of the Pb free solder on the pins or solder area before applying Pb solder. If this is not practical, be sure to heat the Pb free solder until it melts, before applying Pb solder.

- After applying PbF solder to double layered boards, please check the component side for excess solder which may flow onto the opposite side. (see figure below)



Suggested Pb free solder

There are several kinds of Pb free solder available for purchase. This product uses Sn+Ag+Cu (tin, silver, copper) solder. However, Sn+Cu (tin, copper), Sn+Zn+Bi (tin, zinc, bismuth) solder can also be used.

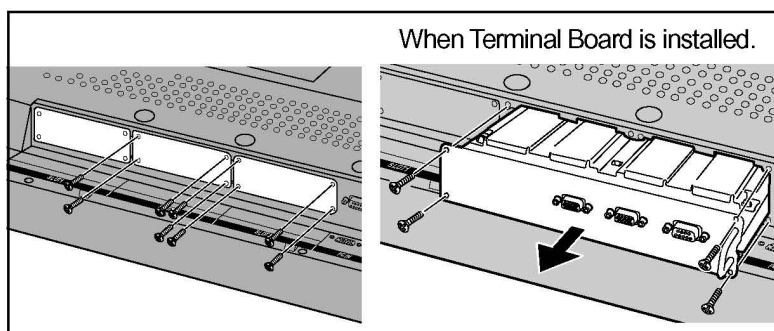
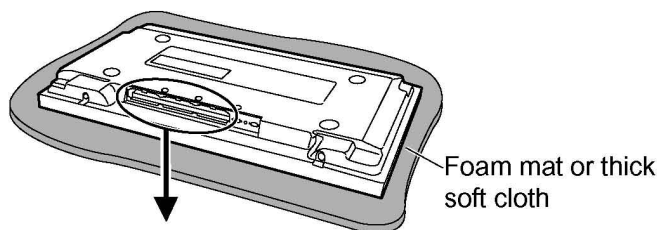
0.3mm X 100g	0.6mm X 100g	1.0mm X 100g
		

4 Replacement

The following explanation uses the 42/50-inch plasma display as an example. The terminal board shown is a typical example of one that can be replaced.

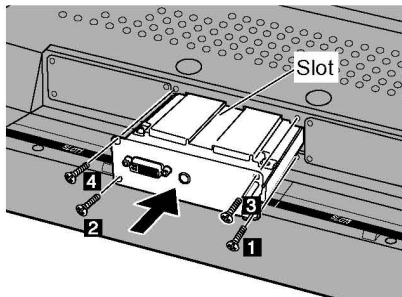
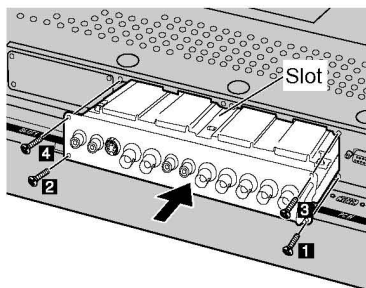
- Before proceeding with the replacement steps, be sure to turn off the entire system including the display, unplug all components from their outlets, and disconnect all the interconnect cables from the display.

The following example shows installation of a dual slot size board and a single slot size board.



1. Removing the dummy cover or mounted terminal board from display:

- Remove the slot cover securing screws (4 or 8 screws) on the back of the display. If a terminal board is already installed, grip the handle of the terminal board, and slowly pull out in the direction of the arrow.



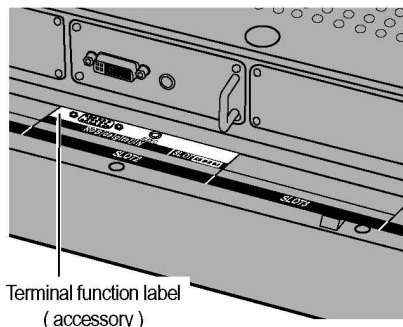
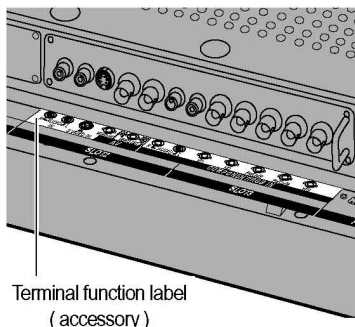
2. Installing desired Terminal Board:

1. Insert the desired Terminal Board into the slot until it is firmly plugged into the card connector.

- Make sure that the Board does not ride on the two lower claws.

2. Secure using the previously removed screws or those supplied with the unit. Tighten screws in the numbered order **1 - 4**.

Please note that there are slot fastening screws at 4 points on each slot (at 2 locations on both the left and right edges), so the number of fastening screws will vary depending on the number of slot insertions. Be sure to fasten all screws tightly.



3. Applying the terminal function label:

Peel off the backing sheet from the terminal function label (accessory) and affix it over the existing label.

- Make sure that the label is affixed with the correct position.

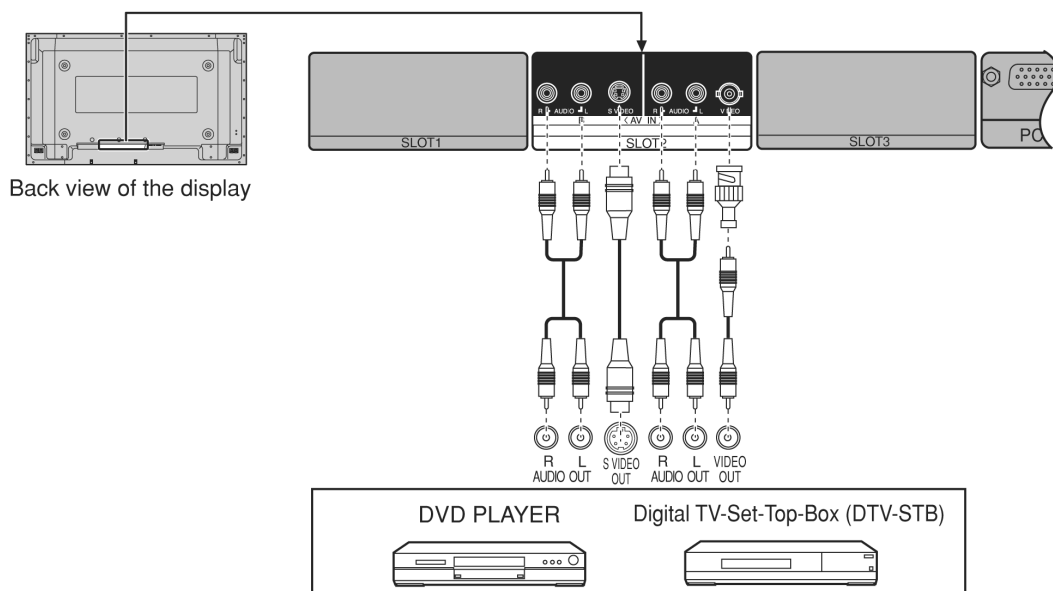
Have the customer keep the removed Terminal Board for future servicing needs.

5 Connection

Slot Nos. of the display unit that are compatible with terminal board attachments.

2 slots model	Slot1, Slot2
3 slots model	Slot1, Slot2 [Slot3 is not compatible]

Connection



Applicable input signals and correspondent colour system setting list

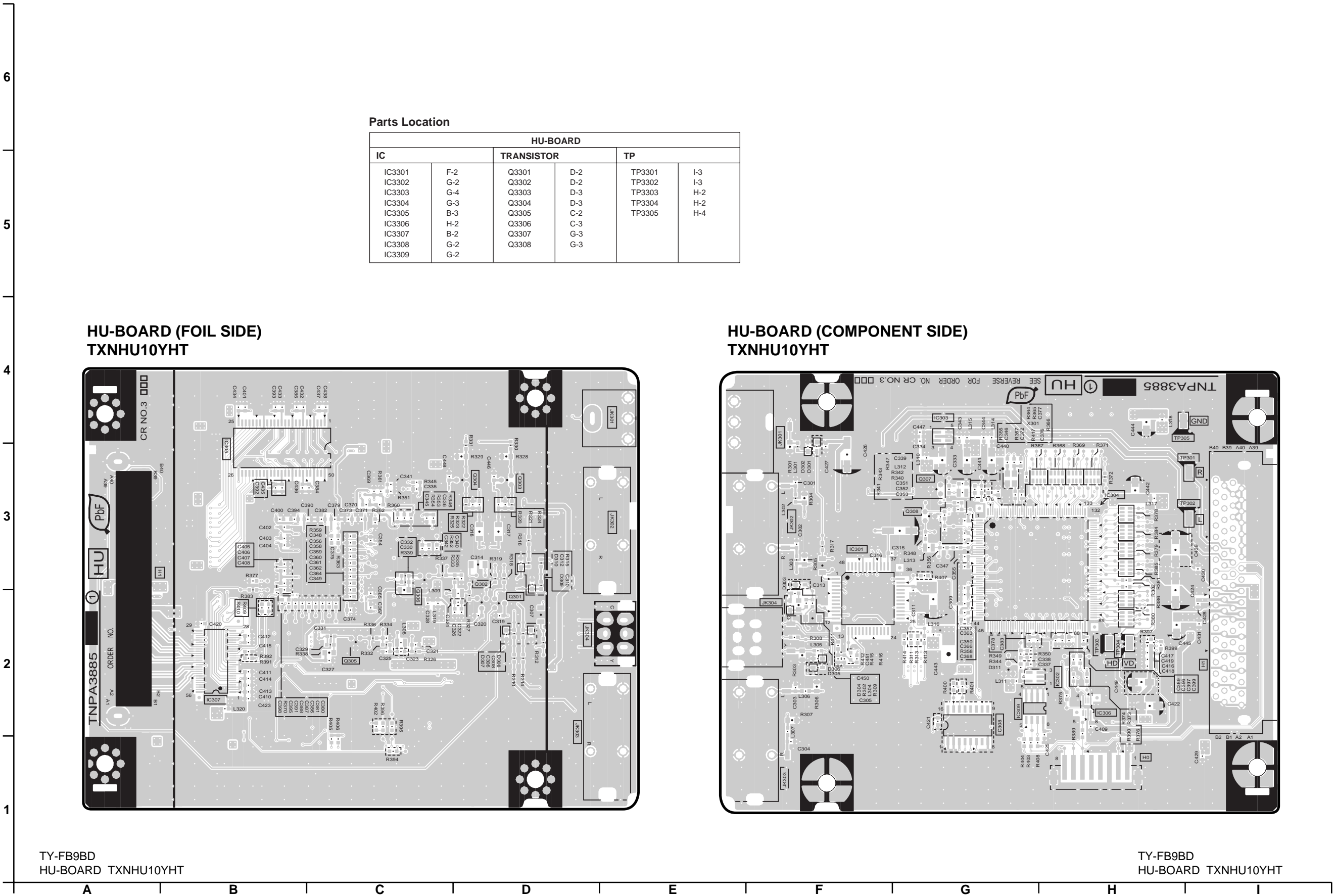
Signal name	Horizontal frequency(kHz)	Vertical frequency(Hz)	Colour System Setting on On Screen Display				
			AUTO	NTSC	PAL	SECAM	M. NTSC
NTSC	15.734	59.94	<input type="radio"/>	<input type="radio"/>			
PAL	15.625	50.00	<input type="radio"/>		<input type="radio"/>		
PAL60	15.734	59.94	<input type="radio"/>		<input type="radio"/>		
PAL-M	15.734	59.94	<input type="radio"/>		<input type="radio"/>		
PAL-N	15.625	50.00	<input type="radio"/>		<input type="radio"/>		
SECAM	15.625	50.00	<input type="radio"/>			<input type="radio"/>	
M. NTSC	15.734	59.94	<input type="radio"/>				<input type="radio"/>

Notes:

- Additional equipment and cables shown are not supplied with this set.
- This terminal board has two pairs of inputs thus “-A” or “-B” is added at the end of each Input label to distinguish between those inputs. “-A” is added for the input which includes the BNC connector, “-B” is added for the input which includes the S-Video terminal.
i.e.) INPUT1A, INPUT1B
- “-A” and “-B” will be displayed alternately when press the DIRECT INPUT button on the display’s remote control.
i.e.) INPUT1A → INPUT1B → INPUT1A - - - (When press the INPUT 1 button with installing the terminal board in Slot 1)
- All inputs will be changed in rotation when press the INPUT button on the remote control.
i.e.) INPUT1 → INPUT2A → INPUT2B → INPUT3 → PC → INPUT1 - - -
(When press the INPUT button with installing the terminal board in Slot 2)
- “-A” or “-B” will be added at the end of the selected label if Input label is chosen to be displayed.
i.e.) DVD2B (When the terminal board is installed in Slot 2, the S-Video terminal is connected and DVD is chosen as a label)
- Common setting is made for “-A” and “-B” about Picture, Sound, all Set up menus and ASPECT. (Setting can be separately made if set the “Colour system” “Auto”.)
- This terminal board can memorize one Pos. /Size setting for each of the Vertical Frequency reception; one is 50Hz and the other is 60 Hz.
- No Panasonic Auto is available.
- Input A and B cannot be displayed together.
- S-VIDEO and Composite inputs can be used separately.

6 Circuit Board Layout

6.1. HU-Board



NOTE

[illegible]







7 Block and Schematic Diagram

7.1. Schematic Diagram Notes

Important Safety Notice

Components identified by \triangle mark have special characteristics important for safety.
When replacing any of these components, use only manufacture's specified parts.

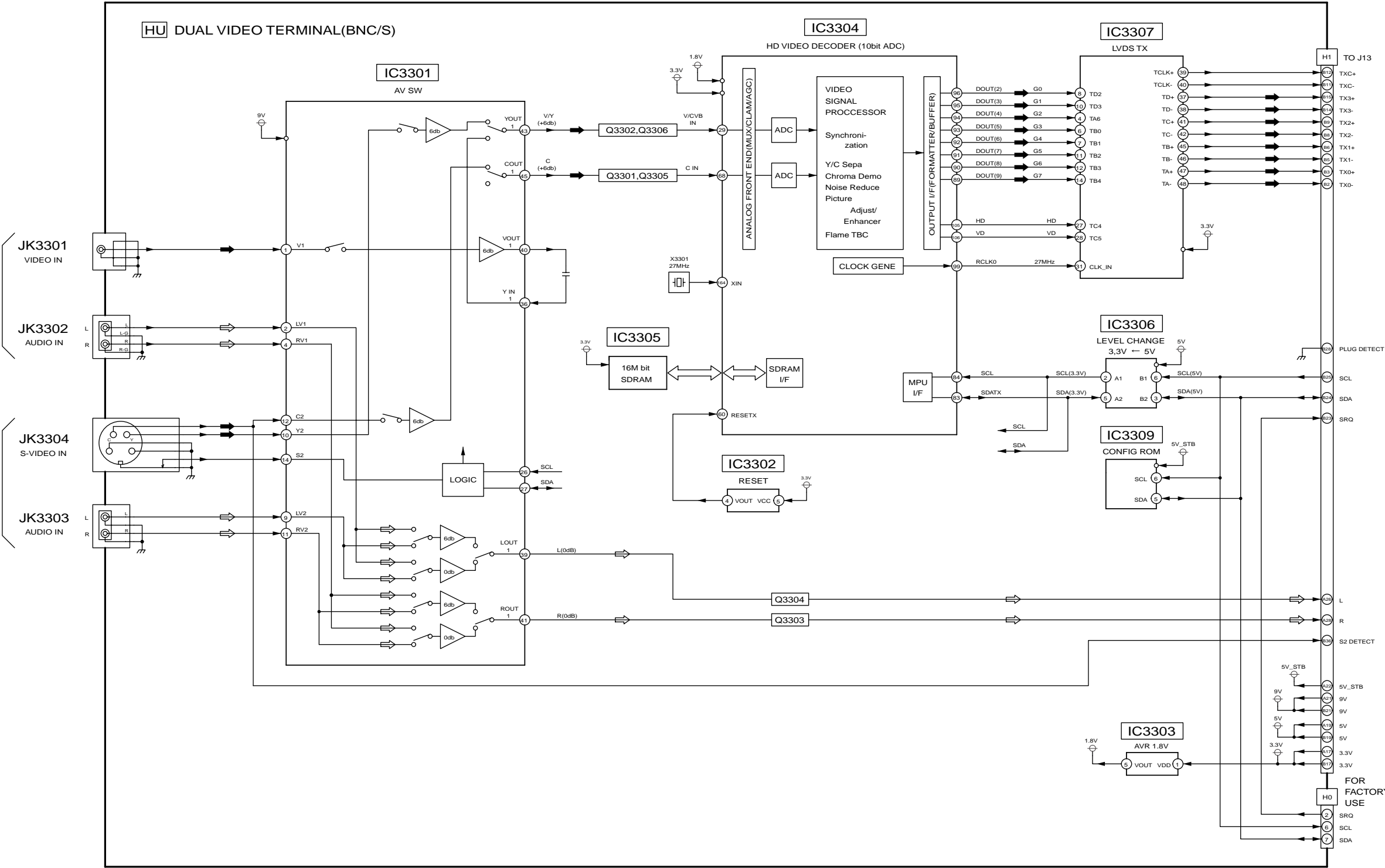
Notes:

- 1. **Resistor**
Unit of resistance is OHM [Ω] (K=1,000, M=1,000,000).
- 2. **Capacitor**
Unit of capacitance is μ F, unless otherwise noted.
- 3. Coil
Unit of inductance is μ H, unless otherwise noted.
- 4. Test Point
 : Test Point position
- 5. Earth Symbol
 : Chassis Earth (Cold)  : Line Earth (Hot)
- 6. Voltage Measurement
Voltage is measured by a DC voltmeter.
Conditions of the measurement are following:
Receiving Signal Colour Bar signal
All customer's controls Maximum positions
- 7. When arrow mark () is found, connection is easily found from the direction of arrow.
- 8. Indicates the major signal flow. : Video  Audio 
- 9. This schematic diagram is the latest at the time of printing and subject to change without notice.

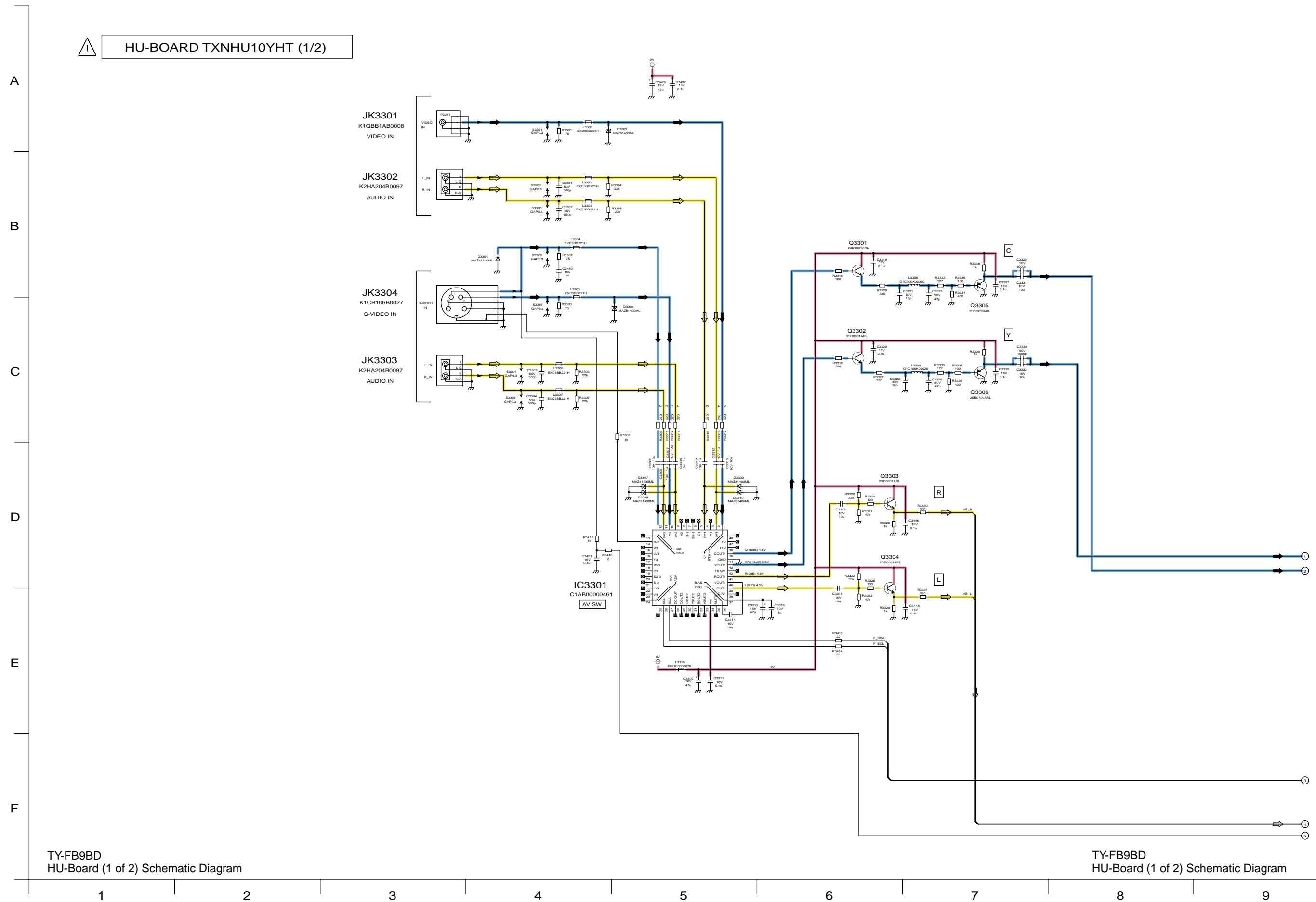
Remarks:

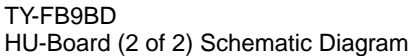
- 1. The Power Circuit contains a circuit area which uses a separate power supplier to isolate the earth connection.
The circuit is defined by HOT and COLD indications in the schematic diagram. Take the following precautions.
All circuits, except the Power Circuit, are cold.
Precautions
 - a. Do not touch the hot part or the hot and cold parts at the same time or you may be shocked.
 - b. Do not short- circuit the hot and cold circuits or a fuse may blow and parts may break.
 - c. Do not connect an instrument, such as an oscilloscope, to the hot and cold circuits simultaneously or a fuse may blow.
Connect the earth of instruments to the earth connection of the circuit being measured.
 - d. Make sure to disconnect the power plug before removing the chassis.

7.2. HU-Board Block Diagram



7.3. HU-Board (1 of 2) Schematic Diagram





8 Replacement Parts List

8.1. Replacement Parts List Notes

Important Safety Notice

Components identified by Δ mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

RTL (Retention Time Limited)

Note: The marking (RTL) indicates that the Retention Time is Limited for this item.

After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependant on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

Abbreviation of part name and description

1. Resistor

Example:

ERD25TJ104 C 100KOHM, J, 1/4W
 Type Allowance

2. Capacitor

Example:

ECKF1H103ZF C 0.01UF, Z, 50V
 Type Allowance

Type	Allowance
C : Carbon	F : $\pm 1\%$
F : Fuse	G : $\pm 2\%$
M : Metal Oxide	J : $\pm 5\%$
Metal Film	K : $\pm 10\%$
S : Solid	M : $\pm 20\%$
W : Wire Wound	

Type	Allowance
C : Ceramic	C : $\pm 0.25\text{pF}$
E : Electrolytic	D : $\pm 0.5\text{pF}$
P : Polyester	F : $\pm 1\text{pF}$
Polyprop	G : $\pm 3\text{pF}$
lene	J : $\pm 5\text{pF}$
T : Tantalum	K : $\pm 10\text{pF}$
	L : $\pm 15\text{pF}$
	M : $\pm 20\text{pF}$
	P : +100%, -0%
	Z : +80%, -20%

8.2. Electrical Replacement Parts List

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3301-04	ECJ1XC1H561J	C 560PF, J, 50V	4	
C3305	ECJ3YB1A106M	C 10UF, M,6.3V	1	
C3306	ECJ1VB1A105K	C 0.01UF, Z, 50V	1	
C3307	ECJ3YB1A106M	C 10UF, M,6.3V	1	
C3308	ECJ1VB1A105K	C 0.01UF, Z, 50V	1	
C3309	EEEB1C470P	C 47PF, J, 16V	1	
C3310	ECJ1VB1A105K	C 0.01UF, Z, 50V	1	
C3311	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3312	ECJ1VB1A105K	C 0.01UF, Z, 50V	1	
C3313,14	ECJ3YB1A106M	C 10UF, M,6.3V	2	
C3315	EEEB1C470P	C 47PF, J, 16V	1	
C3316	ECJ1VB1A105K	C 0.01UF, Z, 50V	1	
C3317,18	ECJ3YB1A106M	C 10UF, M,6.3V	2	
C3319,20	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C3321,22	ECJ1VC1H100C	C 10PF, C, 50V	2	
C3325,26	ECJ1XC1H470J	C 47PF, J, 50V	2	
C3327,28	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C3329,30	ECJ1XB1H102K	C 1000UF, Z, 50V	2	
C3331,32	ECJ1VB1A105K	C 0.01UF, Z, 50V	2	
C3333	EEEB0J470R	C 47PF, J, 6.3V	1	
C3334-36	ECJ1XB1C104K	C 0.1UF, Z, 16V	3	
C3337	ECJ1VB1H103K	C 0.001UF, K, 50V	1	
C3339,40	ECJ1XC1H330J	C 33PF, J, 50V	2	
C3341,42	ECJ1XC1H680J	C 68PF, J, 50V	2	
C3343	ECJ1VB1H103K	C 0.001UF, K, 50V	1	
C3344	ECJ1XB0J105K	C 1UF, K, 16V	1	
C3345	ECJ1VB1A105K	C 0.01UF, Z, 50V	1	
C3346-60	ECJ1XB1C104K	C 0.1UF, Z, 16V	15	
C3361	ECJ1XC1H330J	C 33PF, J, 50V	1	
C3362-68	ECJ1XB1C104K	C 0.1UF, Z, 16V	7	
C3369	ECJ1VB1A105K	C 0.01UF, Z, 50V	1	
C3370-74	ECJ1XB1C104K	C 0.1UF, Z, 16V	5	
C3375	ECJ1VB1A105K	C 0.01UF, Z, 50V	1	
C3376-08	ECJ1XB1C104K	C 0.1UF, Z, 16V	33	
C3409	ECJ1VB1A105K	C 0.01UF, Z, 50V	1	
C3410-12	ECJ1XB1H102K	C 1000UF, Z, 50V	3	
C3413-15	ECJ1XB1C104K	C 0.1UF, Z, 16V	3	
C3416,17	ECJ1XB1H102K	C 1000UF, Z, 50V	2	
C3418,19	ECJ1XB1C104K	C 0.1UF, Z, 16V	2	
C3420	ECJ1XC1H180J	C 18PF, J, 50V	1	
C3422	EEEB0J470R	C 47PF, J, 6.3V	1	
C3423	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3424	EEEB1C470P	C 47PF, J, 16V	1	
C3425	ECJ1VB1A105K	C 0.01UF, Z, 50V	1	
C3426	EEEB1C470P	C 47PF, J, 16V	1	
C3427-31	ECJ1XB1C104K	C 0.1UF, Z, 16V	5	
C3432-36	ECJ1VB1H103K	C 0.001UF, K, 50V	5	
C3437	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3438	ECJ1VB1H103K	C 0.001UF, K, 50V	1	
C3440-42	EEEB0J470R	C 47PF, J, 6.3V	3	
C3443	ECGRL0G680ER	C 68PF, J, 4V	1	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
C3444,45	EEEB0J470R	C 47PF, J, 6.3V	2	
C3446	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3447	ECJ1XB0J105K	C 1UF, K, 16V	1	
C3448	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
C3450	ECJ1VF1C105Z	C 1UF, Z, 16V	1	
C3451	ECJ1XB1C104K	C 0.1UF, Z, 16V	1	
D3302	MA8140M	ZENER DIODE	1	
D3304	MA8140M	ZENER DIODE	1	
D3306-10	MA8140M	ZENER DIODE	5	
D3311	MA3036H	ZENER DIODE	1	
H0	K1KA08AA0150	8P CONNECTOR	1	
H1	K1KA80B00037	80P CONNECTOR	1	
IC3301	CXA2089Q	LINEAR IC	1	
IC3302	PST9128NR	IC (LOGIC)	1	
IC3303	C0CBCAC00275	IC	1	
IC3304	C1AB00002487	IC	1	
IC3305	C3ABMG000227	IC	1	
IC3306	C0JBAZ002269	IC	1	
IC3307	C0JBCZ000523	IC	1	
IC3309	C3EBGC000065	IC	1	
JK3301	K1QBB1AB0008	CONNECTOR	1	
JK3302,03	K2HA204B0097	JACK	2	
JK3304	K1CB106B0027	CONNECTOR	1	
L3301-07	EXC3BB221H	BEAD CHOKE	7	
L3308,09	G1C100K00020	INDUCTION COIL	2	
L3310,11	J0JHC0000078	CHIP INDUCTOR	2	
L3312,13	G1C6R8MA0061	INDUCTOR COIL	2	
L3314-20	J0JHC0000078	CHIP INDUCTOR	7	
Q3301-04	2SD601A	TRANSISTOR	4	
Q3305-08	2SB0709A	TRANSISTOR	4	
R3301-03	ERJ6ENF75R0	M 75 OHM, 1/10W	3	
R3304-07	ERJ6GEYJ223	M 22KOHM,J,1/10W	4	
R3308	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R3309,10	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R3312	ERJ3GEYJ221	M 220 OHM,J,1/16W	1	
R3314-17	ERJ3GEYJ221	M 220 OHM,J,1/16W	4	
R3318,19	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R3320	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	
R3321	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R3322	ERJ3GEYJ333	M 33KOHM,J,1/16W	1	
R3323	ERJ3GEYJ473	M 47KOHM,J,1/16W	1	
R3324,25	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R3326,27	ERJ3EKF3300	M 330 OHM, 1/16W	2	
R3328,29	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R3330,31	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R3332,33	ERJ3EKF1270	M 127 OHM, 1/16W	2	
R3334,35	ERJ3EKF4300	M 430 OHM, 1/16W	2	

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
R3336,37	ERJ3GEYJ101	M 100 OHM,J,1/16W	2	
R3338,39	ERJ6GEYJ102	M 1KOHM,J,1/10W	2	
R3340,41	ERJ3GEYJ151	M 150 OHM,J,1/16W	2	
R3342,43	ERJ3GEYJ100	M 10 OHM,J,1/16W	2	
R3344	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R3345,46	ERJ3GEYJ331	M 330 OHM,J,1/16W	2	
R3347,48	ERJ3GEYJ221	M 220 OHM,J,1/16W	2	
R3349	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R3350	ERJ3GEYJ104	M 100KOHM,J,1/16W	1	
R3351,52	ERJ3GEYJ473	M 47KOHM,J,1/16W	2	
R3353	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R3354	ERJ3GEYJ112	M 1.1KOHM,J,1/16W	1	
R3355,56	ERJ3GEYJ100	M 10 OHM,J,1/16W	2	
R3358	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R3359	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R3360	ERJ3GEYJ222	M 2.2KOHM,J,1/16W	1	
R3361	ERJ3GEYJ112	M 1.1KOHM,J,1/16W	1	
R3362	ERJ3GEYJ272	M 2.7KOHM,J,1/16W	1	
R3363-65	ERJ3GEYJ100	M 10 OHM,J,1/16W	3	
R3366	ERJ3GEYJ220	M 22 OHM,J,1/16W	1	
R3367-69	EXB38V220J	RESISTOR ARRAY	3	
R3370	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R3371	EXB38V220J	RESISTOR ARRAY	1	
R3372-74	ERJ3GEYJ220	M 22 OHM,J,1/16W	3	
R3375-77	ERJ3GEYJ103	M 10KOHM,J,1/16W	3	
R3378-80	EXB38V220J	RESISTOR ARRAY	3	
R3381-83	ERJ3GEYJ220	M 22 OHM,J,1/16W	3	
R3384-86	EXB38V220J	RESISTOR ARRAY	3	
R3389,90	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R3392	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R3399	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R3403,04	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R3405,06	ERJ3GEYJ472	M 4.7KOHM,J,1/16W	2	
R3408	ERJ3GEYJ103	M 10KOHM,J,1/16W	1	
R3411	ERJ3GEYJ102	M 1KOHM,J,1/16W	1	
R3413,14	ERJ3GEYJ220	M 22 OHM,J,1/16W	2	
R3416	ERJ3GEY0R00	M 0 OHM, 1/16W	1	
R3417	ERJ3GEYJ100	M 10 OHM,J,1/16W	1	
RTL	TXNHU10YHT	CIRCUIT BOARD HU	1	△
X3301	H1A2705B0032	CRYSTAL	1	

8.3. Mechanical Replacement Parts List

Ref. No.	Part No.	Part Name & Description	Pcs	Remarks
1	TBMU627	TERMINAL SHEET	1	
2	THEL0239	SCREW FOR INSTALLATION	4	
3	THEL027N	SCREW FOR SHIELD PLATE	4	
4	TPCB96201	CARTON BOX	1	△
5	TPDF1103	CUSHION	1	
6	TPEH135	PROTECT COVER	1	
7	TQE6691	POLY BAG (SCREW)	1	
8	TQZH461-1	INSTRUCTION SHEET	1	
9	TQZH737	INSTRUCTION BOOK (ENGLISH)	1	△
10	XTV3+10JFJ	SCREW FOR AV TERMINAL	3	
11	XZBT6506	POLY BAG (INSTRUCTION BOOK)	1	

8.5. Parts Location (2)

